



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,337	03/23/2004	Toyohiko Youan	040145	2202
23850	7590	11/22/2005	EXAMINER	
ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP			SINGH, SUNIL	
1725 K STREET, NW			ART UNIT	
SUITE 1000			PAPER NUMBER	
WASHINGTON, DC 20006			3673	

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan (2003-086344) on 3/26/03. It is noted, however, that applicant has not filed a certified copy of the above mentioned application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott (US 2349033) in view of Cherrington et al. (US Re. 33793).

Elliott discloses a pipe burying method for burying a pipe in the earth by using a reamer (see Fig. 1 & 4 for a first type of reamer and Fig. 3 for a second type of reamer), the method comprising the steps of: preparing various type of reamers (see Fig. 1 & 4 for a first type of reamer, note in Figure 4, member (55) is consider to be reaming the pilot borehole created by members (34,35) and Fig. 3 for a second type of reamer), selecting (see col. 2 lines 35-70) at least a reamer suitable for a soil type from among the various types of reamers based on the type of soil to be bored; connecting the selected reamer to a front end of a rod in a pilot hole in the earth and to the pipe (see

Fig. 3); pulling out the rod from the pilot hole while pulling the reamer and burying the pipe connected to the reamer in the earth. The reamer has a reamer main body that is approximately cone-shaped, with a diameter which contracts towards a side of the pilot hole from which it is retracted (see Fig. 3), and a platy member connected to the outer surface of the reamer main body to form a drilling part, the various types of reamers being prepared by connecting the various types of platy members to the reamer main body (see Fig. 1 & 4 for a first type of reamer with platy members and Fig. 3 for a second type of reamer with platy members). Elliott discloses the invention substantially as claimed. However, Elliott does not install his pipe by rotating means instead Elliott uses percussive means. Cherrington et al. teaches to install pipe by rotating means (see col. 8). It would have been considered obvious to one of ordinary skill in the art to modify Elliott by substituting the rotating means as taught by Cherrington et al. for the percussive means disclosed by Elliott since this is an obvious design to choice.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott '033 in view of Cherrington et al. '793 and Stephenson et al. (US 5799740).

Elliott discloses the invention substantially as claimed (see Fig. 3). However, Elliott does not install his pipe by rotating means instead Elliott uses percussive means. Further, Elliott is silent about preparing various platy members and selecting a particular platy member depending on soil type. Cherrington et al. teaches to install pipe by rotating means (see col. 8). Stephenson et al. teach preparing various platy members and selecting a particular platy member depending on soil type (see col. 10 lines 15-30).

Art Unit: 3673

It would have been considered obvious to one of ordinary skill in the art to modify Elliott by substituting the rotating means as taught by Cherrington et al. for the percussive means disclosed by Elliott since this is an obvious design to choice. It would have also been considered obvious to one of ordinary skill in the art to modify Elliott and include preparing various platy members and selecting a particular platy member depending on soil type as taught by Stephenson et al. since this facilitates versatility, meaning one would not need to invest in a plurality of boring heads.

Response to Arguments

5. Applicant's arguments with respect to claim 4 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's arguments filed 8/30/05 have been fully considered but they are not persuasive. Applicant argues that Elliott fails to teach a reamer. The examiner disagrees. Applicant is directed to Figure 1 & 4 wherein one type of reamer is provided, note in Figure 4, member (55) is consider to be reaming the pilot borehole created by members (34,35). Another type of reamer is depicted in Figure 3. Applicant further argues that there is no teaching of selecting a reamer type based on soil type. This is not concurred with. Applicant is directed to col. see col. 2 lines 35-70 of Elliott wherein reamer type shown in Figs. 1 & 4 is used in one type of soil, while another type of reamer as depicted in Fig. 3 is used in another type of soil.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 3673

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

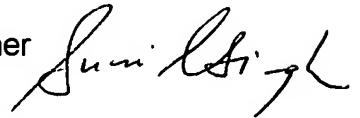
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sunil Singh whose telephone number is (571) 272-7051. The examiner can normally be reached on Monday through Friday 10:30 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on (571) 272-7049. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3673

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sunil Singh
Primary Examiner
Art Unit 3673



SS



11/10/05